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ROETZEL AND ADDRESS 222 SOUTH MAIN STREET AKRON, OH 44308			EXAMINER VANATTA, AMY B	
			ART UNIT	PAPER NUMBER
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			07/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/605,979

Applicant(s)

WU ET AL.

Examiner

Amy B. Vanatta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15, 35 and 36 is/are allowed.
- 6) ☒ Claim(s) 16-34 and 37-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The term "nonwoven", as recited in claims 16, 20, and 23, does not have antecedent basis in the specification.

2. Claims 23 and 40 are objected to because of the following informalities:

In claim 23, there is a typographical error in line 1. That is, "resistant" should read as "resistance".

In claim 40 the word "said" is missing before "at least one" (line 1).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 16-31 and 37- 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not disclose

a nonwoven layer. The term "nonwoven", as recited in claims 16, 20, and 23, constitutes new matter. It is noted that the term "nonwoven" has a customary meaning in the art. According to MPEP 2111.01, "the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention". A "nonwoven" is a type of textile or web having structural integrity imparted by continuous or discontinuous strands or fibers held together in random or ordered array by mechanical interlocking (e.g., as a consequence of needling or hydroentangling, etc.) or bonding. Applicant does not disclose the use of such a layer in the present specification. Although a term may be given special meaning in the description, applicant provides no such special meaning in the specification.

It appears that applicant does not intend to claim a "nonwoven" layer under the traditional definition of "nonwoven", but rather applicant is attempting to recite that the layer is not woven, in order to define over the prior art, which discloses a woven layer. This intention is unclear from the claims, however, which appear to recite a "nonwoven" layer under the customary meaning of "nonwoven" in the art. It is suggested that applicant amend the claims to more clearly define the layer which is not woven, or is of a structure other than "woven", so as to define over the prior art while not reciting a "nonwoven" per se, which is a distinct and different structure than that which is provided in applicant's invention.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 24, 39, and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 is indefinite in reciting "said polymeric layer" (lines 1-2) since two different polymeric layers were previously recited in claim 23, and thus it is unclear to which polymeric layer claim 24 refers.

Claims 39 and 40 are indefinite in reciting "said at least one polymeric layer" since claim 23 recites "at least one polymeric layer" and "at least one nonwoven polymeric layer", thus reciting two different "at least one" polymeric layers. It is unclear to which polymeric layer claims 39 and 40 refer.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 32 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Moore et al (US 4,338,234).

Moore et al disclose a polymer which is reinforced with chopped fibers. As disclosed in col. 2, lines 11-30, two polymer premix films are laid one on top of the other, with chopped glass fiber being deposited on the bottom film such that the fiber is between the two film layers. The film layers are then kneaded with rollers to uniformly

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distribute the glass fibers in the polymer premix film. Thus, the resulting product is a polymeric film comprising at least one polymeric layer having chopped glass fibers randomly dispersed therein. Moore teaches that products are made from this material, thus being "articles" as in claim 32. Moore teaches that the glass fiber is used for reinforcement of the polymer (see, e.g., col. 1, lines 18-20 and col. 2, lines 3-6). It is the examiner's position that the glass fibers disclosed by Moore provide sufficient reinforcement and are of a strength such that they provide at least some resistance to cuts and punctures, as recited in claim 32 (see cols. 9-10 and Example I in col. 11).

9. Claims 23-25, 31, 32, 34, and 39-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Eichhorn et al (US 4,596,736).

Eichhorn et al disclose a fiber reinforced resinous sheet which is thin and forms a "polymer film" to the extent claimed in claim 23. The sheet comprises at least one polymeric layer having chopped fibers randomly dispersed therein (see at least one of the outer layers disclosed in col. 3, line 61- col. 4, line 25; see Examples in cols. 7-8; and see in particular col. 7, line 50-52 and col. 11, line 46-7 disclosing the use of chopped fibers). The sheet also comprises at least one polymeric layer (see intermediate layer disclosed in col. 3, lines 8-9) substantially devoid of chopped fibers. This layer is not woven and thus meets the limitation of being "nonwoven" to the extent the meaning of this limitation is understood as claimed.

Regarding claim 24, the polymeric layer which forms the intermediate layer is disclosed as made of materials as claimed (see col. 3, lines 10-28). The fibers are

disclosed as glass or aramid (col. 4, lines 13-25) as claimed. The fibers are disclosed as having a length of 3/16 inches (see examples in cols. 7-8), which is about 4.762 mm, which falls within the claimed range recited in claim 31.

Regarding claim 32, Eichhorn et al disclose a fiber reinforced resinous sheet which is thin and forms a "polymer film" to the extent claimed in claim 32. The sheet comprises at least one polymeric layer having chopped fibers randomly dispersed therein; see at least one of the outer layers disclosed in col. 3, line 61- col. 4, line 25; see Examples in cols. 7-8; and see in particular col. 7, line 50-52 and col. 11, line 46-7 disclosing the use of chopped fibers. Alternatively, see the example disclosed in col. 8 forming Comparative Sample No. C-3 which comprises layers of polymer mat all including chopped glass fibers (i.e. there is no layer devoid of fibers in this example). Eichhorn discloses that article are made of this reinforced resin sheet (col. 7, lines 40-42), as in the preamble of claim 32.

Eichhorn teaches that the glass fiber is used for reinforcement of the polymer and provides high strength (see, e.g., col. 1, lines 11-13; col. 2, lines 10-12; col. 7, lines 40-42; and see properties shown in the Tables for examples described in cols. 7-8). It is the examiner's position that the glass fibers disclosed by Eichhorn provide sufficient reinforcement and strength such that they provide resistance to cuts and punctures, as recited in claims 23 and 32.

Regarding claims 39 and 40, see col. 8, lines 44-47 disclosing an example in which the fiber containing polymeric layer comprises 30% by weight fibers (thus comprising 70% by weight of polymer).

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Regarding claims 41 and 42, see col. 8, lines 33-36 or col. 8, lines 44-47 disclosing examples in which the fiber containing polymeric layer comprises 30% by weight fibers (thus comprising 70% by weight of polymer).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 33, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moore et al (4,338,234).

Moore et al disclose a polymeric film as claimed, and disclose that articles are made out of the film, as in claim 32. Regarding claim 33, Moore discloses an example in col. 2, lines 11-30 in which the polymeric layer comprises unsaturated polyester resin or vinyl ester resin. Such polymers are similar to those disclosed in claim 33, however Moore does not specifically disclose use of the claimed polymers as set forth in claim 33. Such polymeric materials are well known in the art, however, and are conventionally used for polymer layers or films. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use one of the polymers recited in claim 33 for the polymeric layers of Moore, since it has been held to be within the general skill of a worker in the art to select a known material on the basis

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of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125.

Regarding claims 41 and 42, Moore discloses that the glass fiber content in the polymeric compound is generally between 25 and 45 percent by weight (col. 2, lines 29-30). This overlaps with the range of 2-30% by weight fibers and 70-98% by weight polymer, in as claims 41- 42. It is within the routine skill in the art to determine the optimal range based upon routine experimentation, and in view of the overlap of the ranges of Moore with the claimed ranges, it would require only ordinary skill in the art to use a low percentage of fibers, i.e. 25-30% in the product of Moore, which falls within the claimed range, in order to result in a more flexible product. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use 25-30% by weight fibers in the product of Moore, thus meeting the claimed limitations of claims 41-42, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

12. Claims 26, 27, 30, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichhorn et al (US 4,596,736).

Eichhorn discloses a fiber reinforced resinous sheet which forms a film as in claim 23. Eichhorn discloses various materials which may be used for the reinforcing fibers (col. 4, lines 13-25), however the particle filled polymeric fibers as recited in claim 26 are not disclosed. Such a fiber material is known to be used for reinforcement,

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however, and applicant fails to disclose any criticality as to the material selected for the chopped fibers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use particle filled polymeric fibers as the chopped fibers in the polymeric layer of Eichhorn, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125.

Regarding claim 27, Eichhorn does not disclose the value of the increase in cut resistance (or strength) which is provided by the fibers. The value of the increase in cut resistance is dependent upon the types of fiber and polymer selected and the weight percent of each which is used. One having routine skill in the art would recognize that the fibers and polymers and the ratios thereof may be varied and chosen according to the strength and reinforcement level desired. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the materials and ratios thereof for the sheet of Eichhorn such that the sheet is provided with a cut resistance which is increased by at least 20 percent, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

As to claim 30, Eichhorn does not disclose the denier of the chopped fibers, however one of routine skill in the art would recognize that the fiber denier should be chosen as appropriate for the desired strength and thickness of the sheet. Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use fibers having a denier in the range of about 1 to about 10,

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since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Eichhorn discloses a polymeric film and article made therefrom as in claim 32. As set forth above, Eichhorn discloses a fiber reinforced resinous sheet which is thin and forms a "polymer film" to the extent claimed in claim 32 and the sheet comprises at least one polymeric layer having chopped fibers randomly dispersed therein; see at least one of the outer layers disclosed in col. 3, line 61- col. 4, line 25; see Examples in cols. 7-8. Alternatively, see the example disclosed in col. 8 forming Comparative Sample No. C-3 which comprises layers of polymer mat all including chopped glass fibers (i.e. there is no layer devoid of fibers in this example). Eichhorn does not disclose that the polymer of the polymeric layer having the chopped fibers is one of those recited in claim 33. Such polymers are well known in the art, however, and are conventionally used for polymer layers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use one of the polymers recited in claim 33 for the polymeric layer of Eichhorn, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125.

Allowable Subject Matter

13. Claim 1-15, 35 and 36 are allowed.
14. Claims 16-22 and 37-38 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action.

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15. Claims 28 and 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

16. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 1-34, applicants' arguments pertaining to the rejection of the claims under 35 U.S.C. 103 as unpatentable over Darras et al in view of Riffle et al or Becker et al are persuasive. Thus, claim 1 and the claims dependent thereon are allowable since the prior art does not disclose a glove comprising at least three dipped formed elastomeric layers forming the entire glove, the layers including an innermost layer, an outermost layer, and a middle layer, wherein the middle layer contains a three dimensional network of chopped fibers randomly dispersed throughout. Claim 16 and the claims dependent thereon are allowable since the prior art does not disclose a glove comprising at least one polymeric layer including chopped fibers randomly dispersed therein such as to form a "non-woven" glove (i.e. a glove which does not comprise any woven layers), the glove having cut and puncture resistance throughout. Claim 20 and the claims dependent thereon are allowable since the prior art does not disclose a glove comprising an innermost layer, an outermost layer, and a middle layer, wherein the middle layer extends throughout the entire glove and contains a three dimensional network of chopped fibers randomly dispersed throughout, and wherein at least one of the innermost layer and the outermost layer is "non-woven" (i.e. is not woven).

Response to Arguments

17. Applicants' arguments filed 8/1/05 have been fully considered but they are not persuasive with regard to the rejection of claims 32 and 34 as anticipated by Moore et al. Applicants argue that Moore does not disclose the claimed element of "having cut and puncture resistance throughout". The examiner notes that Moore does disclose that the chopped glass fibers provide reinforcement of the polymer (see, e.g., col. 1, lines 18-20; col. 2, lines 3-6; and col. 9, line 63 through col. 10, line 9). Moreover, the glass fibers which are discussed by Moore (see, e.g., cols. 9-10 and Example I in col. 11) would inherently provide some resistance to cut and punctures due to their strength. It is the examiner's position that the glass fibers disclosed by Moore provide sufficient reinforcement and are of a strength such that they function to provide at least some resistance to cuts and punctures, as recited in claim 32.

18. Applicant's arguments with respect to claims 23-27, 30, 31, 39 and 40 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is 571-272-4995. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

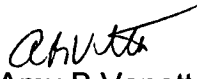
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Amy B Vanatta
Primary Examiner
Art Unit 3765